

Update 2011 Water Shortage



**Peter J. Kwiatkowski, P.G.
South Florida Water Management District
April 14, 2011**

SFWMD Water Shortage Plan (Chapter 40E-21, F.A.C.)

- **Water Shortage -- Insufficient water to meet estimated present and future demands or to protect water resources from serious harm**
- **Equitably distribute available supplies to all users**
- **Balance resource protection with economic impacts**
- **Provide advance knowledge of plan to promote certainty to users**

Part II – Water Shortage Declaration Considerations

- **Estimated Current and Projected Supplies**
- **Estimated Current and Projected Demands**
- **Compare and Evaluate Impacts to Water Resource (Protect from Serious Harm)**
 - **Increased Saltwater Intrusion**
 - **Irreversible adverse impacts to fish and wildlife**
 - **Other factors**
- **Minimum Flows and Levels (MFLs)**

Other Factors

- **Present & Future Water Demands**
- **Climatic and Water Resource Conditions**
- **Effectiveness**
- **Equity**
- **Economic Factors**
- **Severity**
- **Duration**

Phased Restrictions

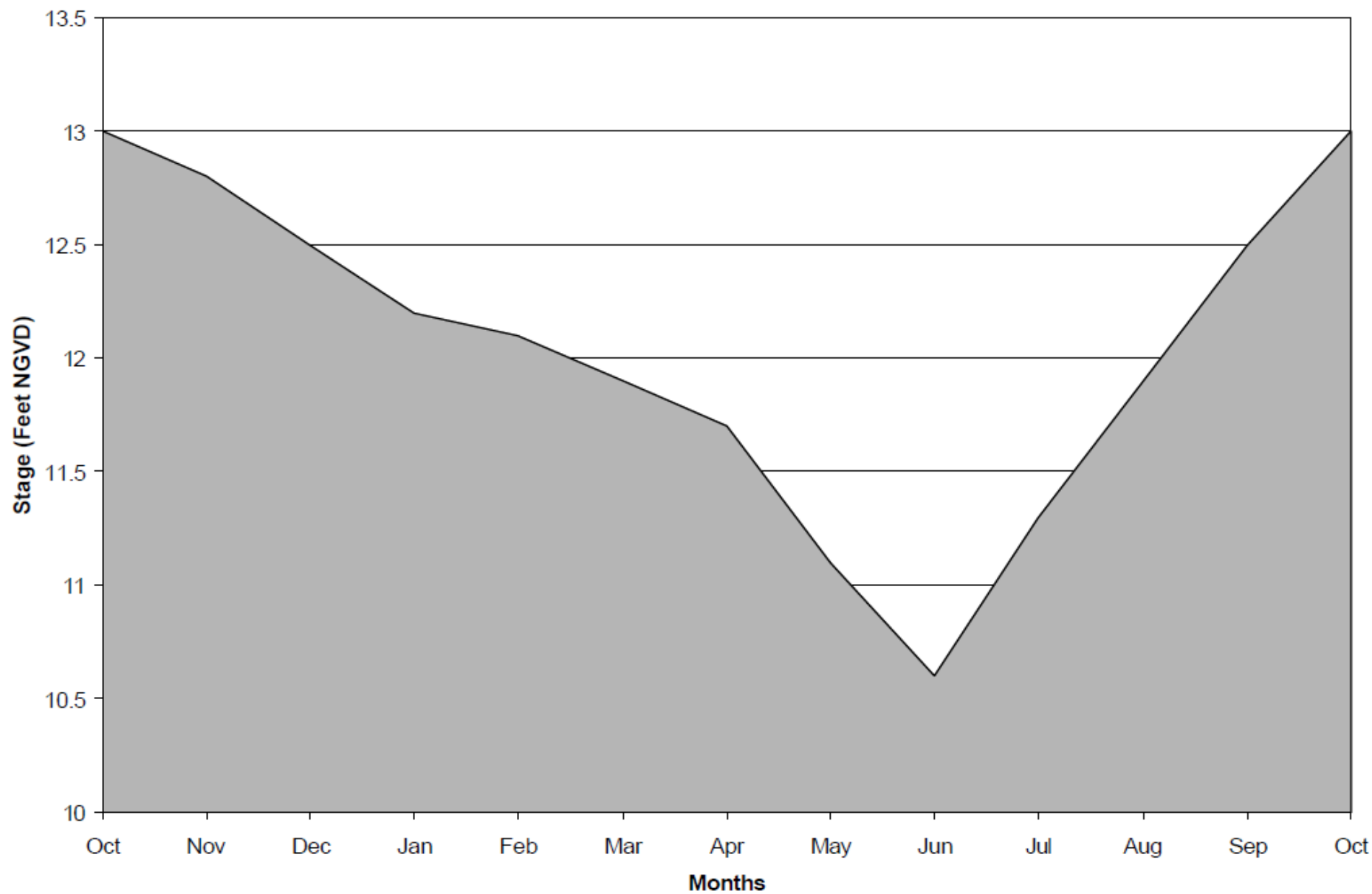
- Phase I – Moderate -- 15% cutback
- Phase II – Severe -- 30% cutback
- Phase III – Extreme – 45% cutback
- Phase IV – Critical – 60% cutback

Note: These are goals

Lake Okeechobee Water Shortage Plan (Chapter 40E-22, F.A.C.)

- Phase I cutbacks may be imposed when water levels fall below trigger line
- Phase II cutbacks may be imposed when water levels fall below trigger line and levels expected to reach June 1st stage of 10.5 ft NGVD
- Phase III or IV cutbacks may be imposed when water levels fall below or can be expected to fall below 10.5 ft NGVD by June 1st
- Additional Factors to consider (Ch. 40E-21, F.A.C.)

**Fig 22-4: Water Shortage Trigger Levels for Lake Okeechobee
as Referenced in Rule 40E-22.332, F.A.C.**

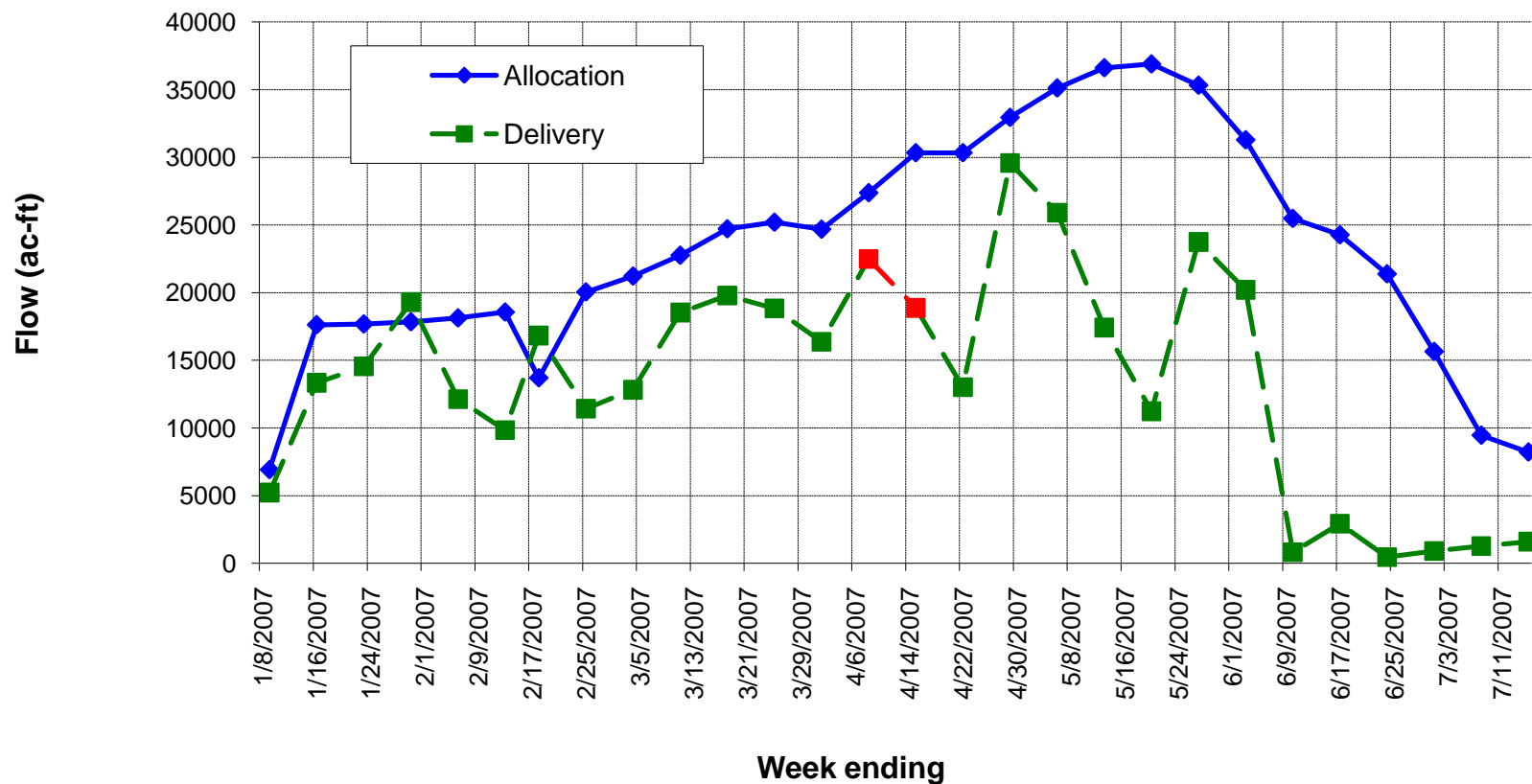


Weekly Allocation Methodology



- Calculate supplemental water needs
- Apply cutback percentage -- consistent with phased restrictions – to calculated water needs
- Post water allocations – distributed per basin – to www.sfwmd.gov
- SFWMD Operations makes water deliveries through Lake O structures to achieve target canal stages, accounting for rainfall and conveyance losses

Allocation vs. Actual Deliveries 2007 Water Shortage

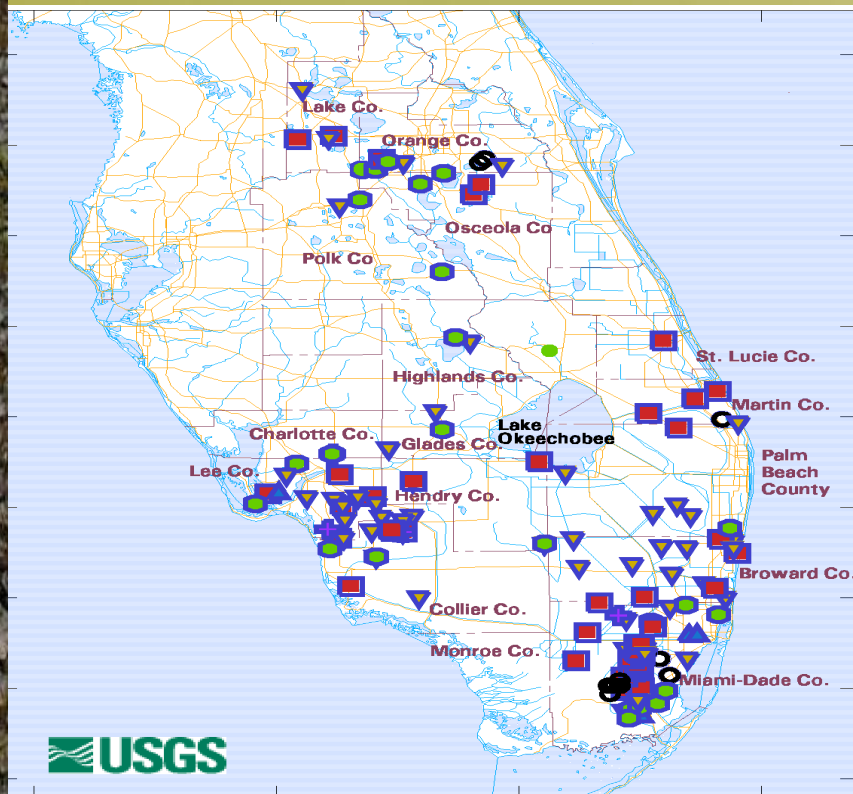


Water stays in the Lake!

Groundwater Levels

Mar. 7, 2011

Apr. 5, 2011

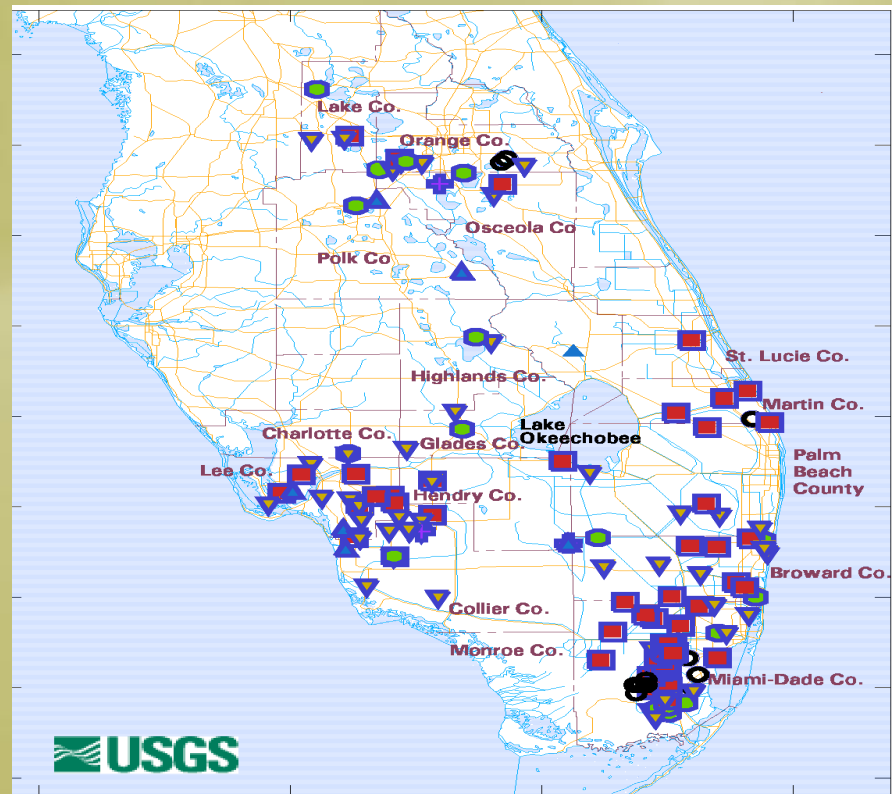


0 15 30 45 60 75 90 MILES
0 15 30 45 60 75 90 KILOMETERS

Rivers and canals
Roads and highways
County boundaries
Telemetry site

Water level compared to historical data, after long-term trends are removed
 Insufficient information available to compute water-level statistics
 In lowest 10 percent of past water elevations
 Within lowest 10 to 30 percent of past water elevations
 Within 20 percent of the median of past water elevations
 Within highest 10 to 30 percent of past water elevations
 In highest 10 percent of past water elevations

**Water levels at selected sites in South Florida,
Based on PROVISIONAL DATA, as of March 7, 2011.**



0 15 30 45 60 75 90 MILES
0 15 30 45 60 75 90 KILOMETERS

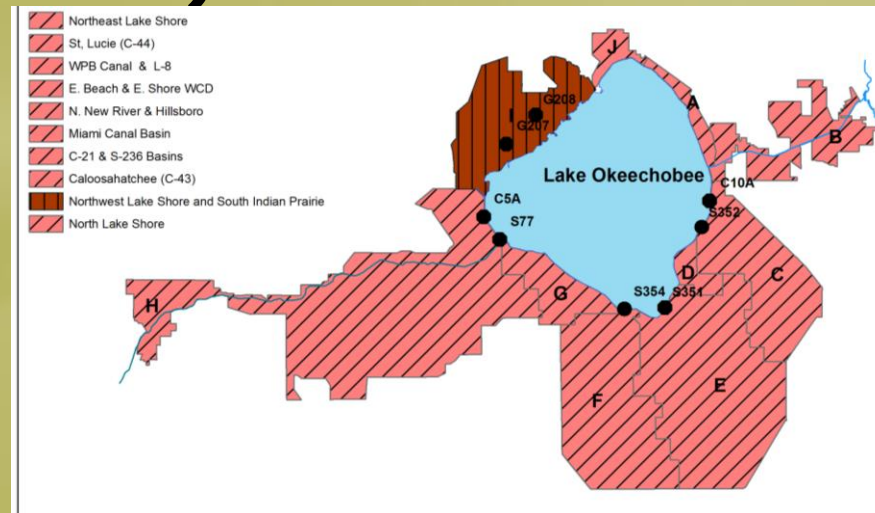
Rivers and canals
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Water level compared to historical data, after long-term trends are removed
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 Within highest 10 to 30 percent of past water elevations
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**Water levels at selected sites in South Florida,
Based on PROVISIONAL DATA, as of April 5, 2011.**

Phase I – Lake Okeechobee Service Area (LOSA)

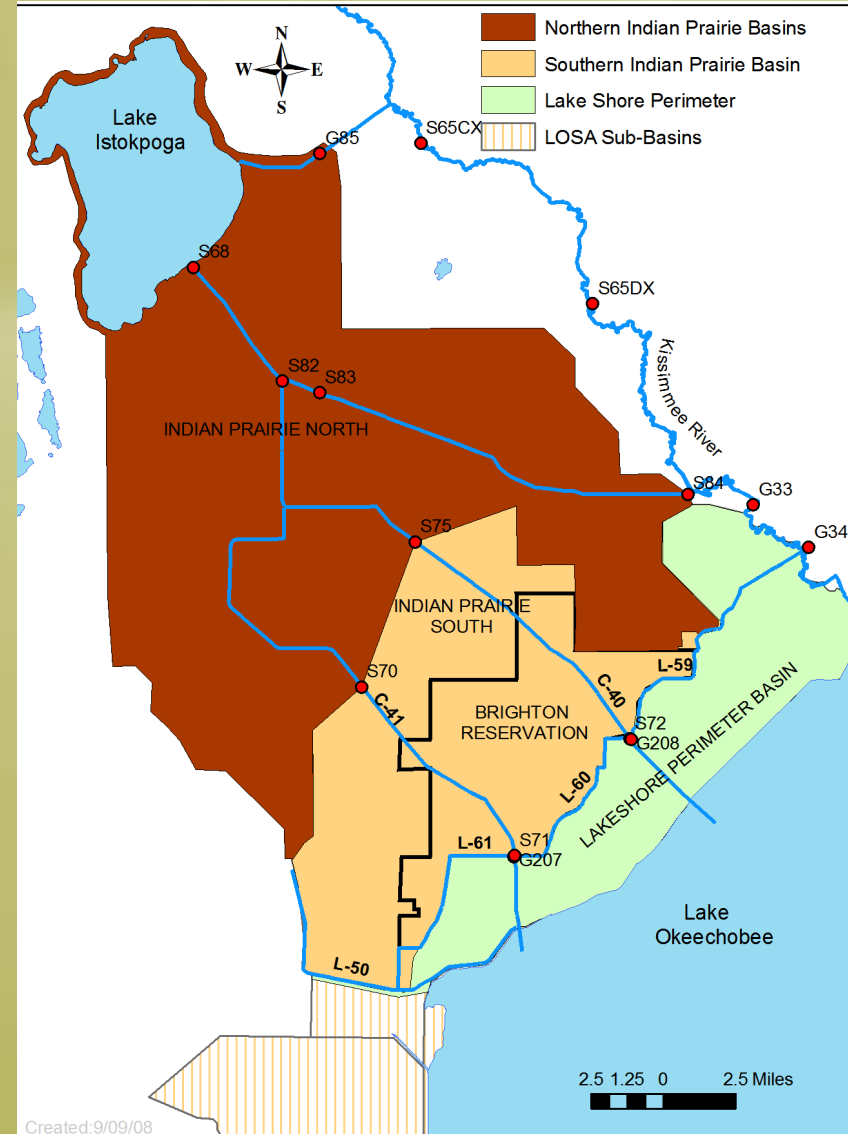
15% cutback – surface water users (e.g., agriculture)



- March 18, 2011 – Lake below trigger line
- March 21, 2011 – Order executed
- March 26, 2011 – Order effective
- April 4, 2011 – Lake above trigger line

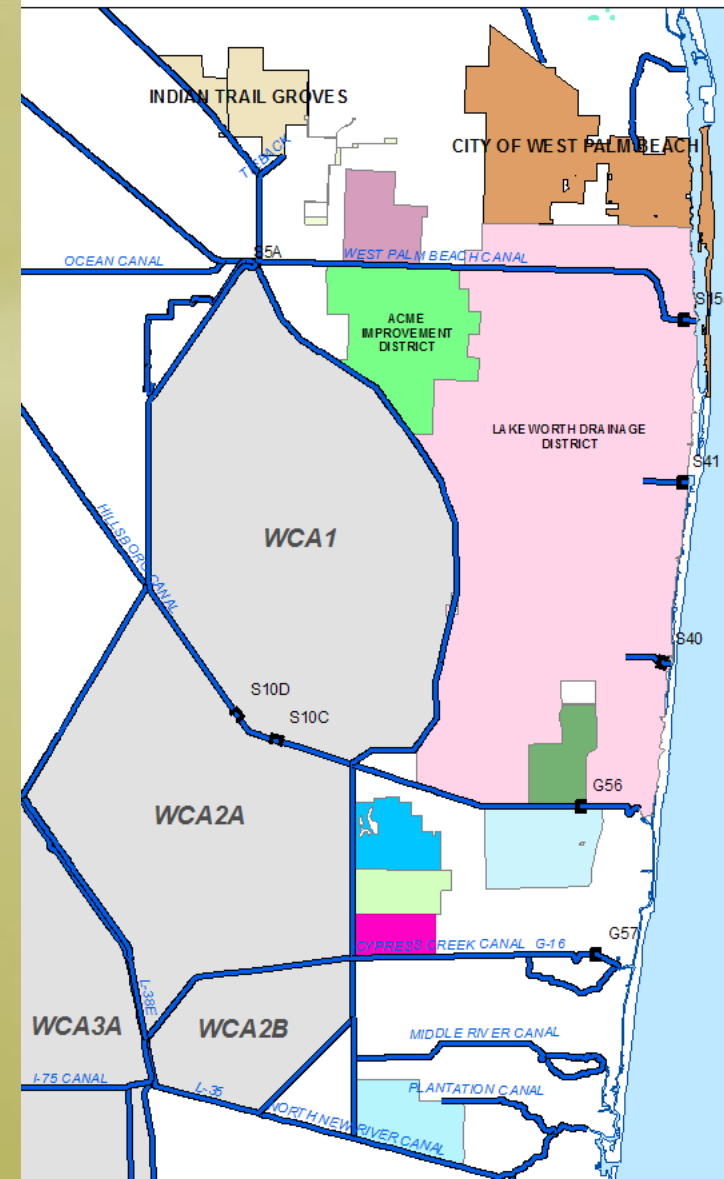
Bypass Order

- **SFWMD assumes temporary control of bypass water control structures along L-59, L-60, C-40, and C-41 canals**
- **Ensures equitable distribution of limited supplies**



Phase I – Palm Beach & Broward Counties

- **15% cutback**
 - **Diversion & Impoundments**
 - **Agriculture**
 - **Nurseries**



District-Wide



- **Phase I -- Golf Courses – 15% cutback**
- **Phase II -- Residential Landscape Irrigation – 2 days per week**
 - **Even Addresses – Thursday & Sunday**
 - **Odd Addresses – Wednesday & Saturday**
 - **No irrigation between 10 a.m. and 4 p.m.**
 - **Applies to all sources (wells, canals, utility)**
 - **Exempt**
 - **Reclaimed water**

All Orders Effective March 26, 2011

